Amendments to the Claims

Please amend Claims 10 and 11. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Previously Presented) A composition comprising OspC polypeptides from Lyme Disease causing *Borrelia* wherein said composition comprises one or more OspC polypeptides from at least two *Borrelia burgdorferi sensu stricto* OspC families selected from the group consisting of: A, B, I, and K, excepting the combination consisting of two OspC proteins wherein one OspC protein is from family A and the second OspC protein is from family I.

2. (Previously Presented) The composition of Claim 1 comprising one or more OspC polypeptides from each of said *Borrelia burgdorferi sensu stricto* families.

3. (Previously Presented) The composition of Claim 1, wherein said OspC polypeptide comprises the OspC protein variable region.

4. (Previously Presented) The composition of Claim 3, wherein said OspC polypeptide is encoded by a nucleic acid comprising nucleotide 26 to about nucleotide 621 of an *ospC* gene.

5. (Previously Presented) The composition of Claim 3, wherein said OspC polypeptide is encoded by a nucleic acid comprising nucleotide 53 to about nucleotide 570 of an *ospC* gene.

6. (Previously Presented) The composition of Claim 1, wherein at least two of said OspC polypeptides are fused together in a single protein, encoded by a single nucleic acid, wherein polypeptides in said fusion protein are not found in the same configuration in a naturally occurring OspC protein.

7. (Original) The composition of Claim 1, wherein the *ospC* genes encoding the OspC polypeptides within a given OspC family are at least 98% identical at the nucleic acid level.

8. (Previously Presented) The composition of Claim 7, wherein *Borrelia burgdorferi sensu stricto* OspC family A comprises strains B31, CA4, HII, IPI, IP2, IP3, L5, PIF, Pka, Txgw and strains containing *ospC* allele OC1.

9. (Previously Presented) The composition of Claim 7, wherein *Borrelia burgdorferi sensu stricto* OspC family B comprises strains 35B808, 61 BV3, BUR, DK7, PB3, Z57 and strains containing *ospC* genes OC2 and OC3.

10. (Currently Amended) The composition of Claim 7, wherein *Borrelia burgdorferi sensu stricto* OspC family I comprises strains 297, HB19 and strains containing *ospC* gene OC10, wherein strain 297 is characterized by *ospC* of GenBank accession number L42893 (SEQ ID NO:85).

11. (Currently Amended) The composition of Claim 7, wherein *Borrelia burgdorferi sensu stricto* OspC family K comprises strains 272, 297, 28354, KIPP, MUL and strains containing *ospC* gene OC12 and OC13, wherein strain 297 is characterized by *ospC* of GenBank accession number U08284 (SEQ ID NO:86).

12-38. (Canceled)

39. (Previously Presented) A chimeric protein comprising OspC polypeptides from two or more Lyme Disease causing OspC families of Lyme Disease causing *Borrelia* wherein said chimeric protein comprises:

a) a first OspC polypeptide encoded by a nucleic acid comprising a sequence from about nucleotide 26 to about nucleotide 621 of an *ospC* gene from a first OspC family and

b) a second OspC polypeptide encoded by a nucleic acid comprising a sequence from about nucleotide 28 to about nucleotide 570 of an *ospC* gene from a second OspC family,

wherein said OspC families are selected from the group consisting of: *Borrelia burgdorferi sensu stricto* OspC families A, B, I, and K, and *Borrelia afzelii* OspC families A and B.

40. (Canceled)

41. (Previously Presented) A chimeric protein comprising OspC polypeptides from two or more Lyme Disease causing OspC families of Lyme Disease causing *Borrelia* wherein said chimeric protein comprises:

a) a first OspC polypeptide encoded by a nucleic acid comprising a sequence from about nucleotide 53 to about nucleotide 570 of an *ospC* gene from a first OspC family and

b) a second OspC polypeptide encoded by a nucleic acid comprising a sequence from about nucleotide 28 to about nucleotide 570 of an *ospC* gene from a second OspC family,

wherein said OspC families are selected from the group consisting of: *Borrelia burgdorferi sensu stricto* OspC families A, B, I, and K, and *Borrelia afzelii* OspC families A and B.

42. (Original) The chimeric protein of Claim 41, wherein said protein is unlipidated.

43. (Previously Presented) A chimeric OspC protein selected from the group consisting of: SEQ Id Nos: 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, and 84.

44-48. (Canceled)

49. (Previously Presented) The composition of Claim 1, further comprising at least one OspC polypeptide from each of *Borrelia afzelii* OspC families A and B.

50. (Previously Presented) The composition of Claim 49, wherein *Borrelia afzelii* OspC family A comprises strains Pbo, Pwud, PKO, Pgau, DK2, DK3, DK21, DK8, Bfox and JSB.

51. (Previously Presented) The composition of Claim 49, wherein *Borrelia afzelii* OspC family B comprises strains DK5, ACA1, DK9, XB18h, Ple and 134M.

52. (Previously Presented) The chimeric protein of Claim 39, wherein said protein is unlipidated.